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Complex PTSD and its correlates amongst female Yazidi victims of sexual slavery living in post-ISIS camps

The atrocities committed by the Islamic State of Iraq and Syria (ISIS) are having vast psychological effects around the world^{1,2}. The Yazidis, a Kurdish religious minority, have suffered the most at the hand of ISIS³. Many men have been executed, while many women have been captured and subjected to sexual slavery, experiencing repeated abuse and rape. Detrimental effects of torture and sexual abuse have been repeatedly documented in the literature^{4,5}, but the Yazidi genocide includes both elements, and has not been hitherto addressed. This preliminary study assessed post-traumatic stress disorder (PTSD) and complex post-traumatic stress disorder (CPTSD) among female Yazidi former captives residing in post-ISIS camps.

Following traumatic exposure, both PTSD and CPTSD may ensue. PTSD typically follows a single traumatic event, while CPTSD is associated with prolonged trauma where one's destiny is under another's control and escape is unfeasible⁶. According to the ICD-11 draft⁶, PTSD comprises three symptoms: re-experiencing, avoidance and arousal. CPTSD includes three more symptoms pertaining to disturbances in self-organization, i.e., affective dysregulation, negative self-concept, and disturbed relationships. Previous data from refugees experiencing torture showed that while 19% had PTSD, 32% fulfilled CPTSD criteria⁴. It is important to estimate both PTSD and CPTSD, as these conditions may correlate with different variables and require distinct interventions^{7,8}.

Resettled female Yazidi captives (N=108, mean age 24.4 ± 5.7 years; mean education 2.8 ± 4.0 years; 45.4% married; mean duration of captivity 7.7 ± 2.7 months; mean times sold 4.3 ± 5.7; mean number of fellow captives 32.3 ± 80.0) were sampled from four post-ISIS camps in Northern Iraq/Kurdistan region during February-March 2017.

Dichotomous (yes/no) exposure items (witnessing mass killings, people being killed; experiencing injury, torture, shelling, shooting, sexual abuse, rape, physical abuse; family members injured or killed) were aggregated to produce an exposure score. We administered the ICD-11 PTSD questionnaire, including six items which addressed the three proposed ICD-11 criteria⁶ (alpha=0.71), and the ICD-11 CPTSD questionnaire, including six additional items, addressing the three proposed ICD-11 criteria⁶ (alpha=0.71). Factor structure for two related yet distinctive constructs (PTSD vs. CPTSD) was slightly better than for a single construct. We also assessed stress in the post-ISIS camp, including experiencing violence, physical abuse,

sexual abuse and hunger. These four items were responded on a 5-point Likert scale (from 1=not at all to 5=very much so, alpha=0.79).

Items that were not already available in Arabic were translated and back translated into English, reviewed, analyzed and corrected. Two pilot studies (N=20) were conducted, and two items (referring to feeling worthless and guilt) were reworded to ensure comprehension. Maintenance of the original meaning was evaluated by five assessors. Questionnaires in Arabic were read by female interviewers (trained by research team).

Fifty-five (50.9%) women had probable CPTSD, while 23 (20.0%) had probable PTSD. Dividing the sample into those with no PTSD, only PTSD and CPTSD revealed no significant group differences in age or marital status, but a marginally significant difference in mean years of education: no PTSD=1.58, only PTSD=2.08, CPTSD=3.92; $F(2,92)=2.98$, $p=0.055$. The groups did not differ significantly in captivity duration, number of fellow captives, number of times sold, or exposure score.

The groups differed significantly in stress endured in post-ISIS camps as evaluated on the Likert scale: no PTSD=2.45, PTSD=2.77, CPTSD=3.78; $F(2,93)=53.37$, $p<0.0001$. Post-hoc Bonferroni tests revealed that, while the no PTSD and PTSD groups were statistically comparable, the CPTSD group reported significantly higher post-ISIS stress than the other two groups.

The CPTSD prevalence we found was higher than CPTSD estimates in samples experiencing captivity/torture alone⁴ or sexual abuse alone⁹, which reflects the unique type of endured trauma combining captivity with sexual slavery. Given the high CPTSD prevalence, Kurdish training/intervention centers in formation should focus on preparing suitable CPTSD interventions. For example, CPTSD requires a phase-based treatment⁸ where safety is a central initial goal; such victims benefit less from traditional PTSD treatments typically focusing on fear reduction.

Indeed, safety seems most relevant to our population, as the very same camp conditions may be less safe for CPTSD women who feel socially cut-off, worthless and guilty. Another possibility aligns with the "straw that broke the camel's back" model, whereby the emergence of CPTSD may be triggered by post-ISIS camp stress, which is less severe than the focal trauma. The above possibilities may be relevant to different

women, as CPTSD may both be a catalyst for increasing risk of experiencing future stress, as well as increasing one's vulnerability to such exposure. These various options can be assessed in a future longitudinal study addressing PTSD/CPTSD immediately after captivity release and at different time points in the post-ISIS camps. In any case, fortifying such traumatized women with a safe environment along with psychoeducation targeting their increased sensitivity may be very helpful until suitable interventions are available.

Limitations of the current study include a cross-sectional cohort and a relatively small sample. Although alpha values exceeded the reliability benchmark, they were lower than in previous studies^{1,2}, perhaps due to cultural/educational factors, which markedly differed in our sample from usual ones. Yet the findings illuminate the psychological aftermath of perhaps the most extreme atrocity occurring in recent years. Results also indicate the need for greater awareness of post-captivity conditions.

Future large-scale studies are required to continue the assessment of Yazidi captives. This should be informative with regard to theoretical issues concerning CPTSD, its distinction from PTSD, as well as aiding the development of feasible, culturally relevant and effective interventions to help these survivors.

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Mental health policies in Commonwealth countries

The large global burden of mental health conditions¹ has led to an increased emphasis on improving access to mental health services in countries across the world. There is clear recognition that improving mental health governance is key to improving access to and quality of mental health services, and the existence of a mental health policy is an important component of improving mental health governance².

The World Health Organization (WHO)'s Mental Health Atlas 2014 found that 68% of countries had a mental health policy³, while the WHO Mental Health Action Plan 2013-2020 set a target that 80% of countries should have developed or updated their mental health policies/plans in line with international and regional human rights instruments by 2020².

The Commonwealth is a voluntary association of 52 independent and sovereign states part of the erstwhile British Empire which, in spite of their geographical variations, generally have similar political, legal and governance systems. We reviewed the mental health policies of Commonwealth countries in order to compare them to standards developed by the WHO and to assess their compliance with international recommendations.

We identified and downloaded mental health policies of Commonwealth countries from WHO MINDbank⁴. If a mental health policy was not found there, we extended our search to official government websites of countries. In the case of federal countries such as Canada and Australia, we relied on a

federal mental health policy and, if this was absent, we used the most recent mental health policy from any of the provinces or, if there were two policies from the same year, the mental health policy from the province with the larger population. We used WHO's Mental Health Policy checklist⁵ to assess compliance of country mental health policies with international recommendations.

Eleven countries (21.1%) did not have a mental health policy. We were unable to find a mental health policy in 16 (30.8%) additional countries, although we found references in various documents to such a policy. We found a mental health policy in 25 countries (48.1%), of which Naaru and Zambia had a "final draft" policy and Uganda and St. Lucia had a draft policy.

Of the countries with a mental health policy, only seven (28.0%) had adopted it after 2011. In only two (8.0%), the policies contained an explicit reference to country data and research informing policy development.

While 15 policies (60.0%) indicated how funding would be used for financing mental health services, only four (16.0%) had a clear statement on providing equitable funding between mental and physical health, and only five (20.0%) explicitly stated that mental health should be included in health insurance. Seventeen policies (68.0%) promoted human rights, while only 14 (56.0%) specifically mentioned developing human rights oriented mental health legislation.